SUBJECT and TITLE INDEX

POLYMER ENGINEERING AND SCIENCE
VOLUME 15
1975

A

1. ABS

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

The Measurement of Toughness of ABS and High-Impact Polystyrene by the Falling Dart Impact Test, A. A. Bibeau, *April, p. 294*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, P. J. Fenelon, *July, p. 538*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

2. Additives

Some Observations on the Long-Term Behavior of Stabilized Polyethylene, J. B. Howard and H. M. Gilroy, *April, p. 268*

World-Wide Weathering of Poly(Vinyl Chloride), E. Szabo and R. E. Lally, *April, p. 277*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Thermal Analysis as an Aid to Monomer Plant Design, A. T. Riga, *May, p. 349*

Dynamic Mechanical and Thermal Properties of Fire-Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

3. Aging

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

4. Antioxidants

Role of Singlet Oxygen in Photo-Oxidative Degradation and Photostabilization of Polymers, J. F. Rabek and B. Rånby, *January, p. 40*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

5. Automation

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

B

6. Biaxial Stretching

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

7. Biomedical Applications

Long Term Thromboresistance of Heparinized Surfaces, J. Ehrlich, *April, p. 281*

Materials for Biomedical Applications, I. LeMay, V. G. Lappi, and W. E. White, *November, p. 789*

8. Birefringence

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. Debeauvais, *May, p. 373*

9. Blends

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

10. Blowing Agents

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

11. Bottles

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

C

12. Catenanes

Polymeric Catenanes, D. Callahan and H. L. Frisch, *February, p. 70*

13. Cellulose Acetate

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

The Dry Spinning Process: Comparison of Theory with Experiment, I. Brazinsky, A. G. Williams, and H. L. Lanieve, *December, p. 834*

14. Cellulose Nitrate Butyrate

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

15. Chromatography

High Speed Molecular Weight Distribution, W. A. Dark, R. J. Limpert, and J. D. Clark, *December, p. 831*

16. Cold Rolling

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

17. Composite

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

Some Critical Issues in Advanced Polymer Science, J. C. Halpin, *March, p. 132*

Mechanics of Composites, L. Nicolais, *March, p. 137*

High-Performance Carbon Fibers, R. J. Diefendorf and E. Tokarsky, *March, p. 150*

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Molecular Composites (expanded abstract), P. Lindenmeyer. *March, p. 236*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, *May, p. 353*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Elongational Viscosity of Microbead Suspensions, L. Nicodemo, B. De Cindio, and L. Nicolais, *September, p. 679*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

The Effect of Interlayers on the Transverse Stresses in Fiber Composites, R. G. C. Arridge, *October, p. 757*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

Materials for Biomedical Applications, I. LeMay, V. G. Lappi, and W. E. White, *November, p. 789*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

18. Computer Simulation

Analysis of a Cross Head Die With the Flow Analysis Network (FAN) Method, C. Gutfinger, E. Broyer, and Z. Tadmor, *May, p. 38*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Development of Computer Control Strategies for Plastic Extruders, J. Parnaby, A. K. Kochhar, and B. Wood, *August, p. 594*

19. Conductivity

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, *May, p. 353*

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. Debeauvais, *May, p. 373*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

20. Copolymers

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A. Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

Allyl Fluoride Copolymers, J. A. Waterman, L. M. Shorr, and I. Shaham, *February, p. 97*

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E. Critchfield, and J. L. Dodd, *September, p. 646*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

21. Cracking

Fatigue Crack Growth in Polymers. I. Effect of Frequency and Temperature, J. C. Radon and L. E. Culver, *July, p. 500*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

Reproducibility of Stress-Cracking Results, R. J. Roe and C. Gieniewski, *June, p. 421*

22. Craze

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

23. Creep

Mechanics of Composites, L. Nicolais, *March, p. 137*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

Non-Linear Creep of Polymers Under Superimposed Static and Dynamic Stress, G. Akay, *November, p. 811*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

Strength of Polymethylmethacrylate in Air and in n-Propanol, D. McCammond and C. A. Ward, *December, p. 869*

24. Crosslinking

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

25. Crystallinity

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Conformational Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Control of Molecular Orientation (abstract), T. Alfrey, Jr., *March, p. 234*

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

Molecular Composites (expanded abstract), P. Lindenmeyer, *March, p. 236*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

Inferences Concerning the Amorphous Regions in Polyethylene of Different Morphologies, M. Dole, *August, p. 628*

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

Dynamic Mechanical and Thermal Properties of Fire Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

26. Crystallization

Studies on Polymer Texture Formation in Complex External Conditions, A. Ziabicki, *March, p. 211*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

27. Cure

Characterization of the Time-Temperature-Viscosity Behavior of Curing B-Staged Epoxy Resin, M. B. Roller, *June, p. 406*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

D

28. Damping

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

29. Deformation

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

30. Degradation

Role of Singlet Oxygen in Photo-Oxidative Degradation and Photostabilization of Polymers, J. F. Rabek and B. Rånby, *January, p. 40*

World-Wide Weathering of Poly(Vinyl Chloride), E. Szabo and R. E. Lally, *April, p. 277*

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

31. Density

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

32. Design

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Thermal Analysis as an Aid to Monomer Plant Design, A. T. Riga, *May, p. 349*

Analysis of a Cross Head Die With the Flow Analysis Network (FAN) Method, C. Gutfinger, E. Broyer, and Z. Tadmor, *May, p. 381*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

On Mixing in Polymer Flow Systems, D. M. Bigg, *September, p. 684*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

The Injection Molding Behavior of Thermo-plastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

33. Drawing

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

34. Dynamic Properties

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

Non-Linear Creep of Polymers Under Superimposed Static and Dynamic Stress, G. Akay, *November, p. 811*

E

35. Ecology

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

36. Economics

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

37. Elasticity

Conformational Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

38. Elastomers

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E. Critchfield, and J. L. Dodd, *September, p. 646*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

39. Electrical Properties

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

40. Electron Microscopy

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

41. Encapsulation

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

42. Engineering

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Engineering Potential of Composite Materials, J. Crivelli-Visconti, *March, p. 167*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Limiting Concepts in Extensional Flow, G. Marrucci, *March, p. 229*

Molecular Composites (expanded abstract), P. Lindenmeyer, *March, p. 236*

43. Environmental Effects

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

44. Epoxy

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

Mechanics of Composites, L. Nicolais, *March, p. 137*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, *May, p. 353*

Characterization of the Time-Temperature-Viscosity Behavior of Curing B-Staged Epoxy Resin, M. B. Roller, *June, p. 406*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

The Effect of Interlayers on the Transverse Stresses in Fiber Composites, R. G. C. Arridge, *October, p. 757*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

High Speed Molecular Weight Distribution, W. A. Dark, R. J. Limpert, and J. D. Clark, *December, p. 831*

45. Extruders

Maximum Pressure Developed by Solid Conveying Force in Screw Extruders, C. I. Chung, *January, p. 29*

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

A Coordinate Frame for Helical Flows, T. T. Tung and R. L. Laurence, *June, p. 401*

Residence Time Distribution in Twin-Screw Extruders, D. B. Todd, *June, p. 437*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Development of Computer Control Strategies for Plastic Extruders, J. Parnaby, A. K. Kochhar, and B. Wood, *August, p. 594*

Theoretical Model for Intermeshing Twin Screw Extruders: Axial Velocity Profile for Shallow Channels, C. E. Wyman, *August, p. 606*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

46. Extrusion

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

Residence Time Distribution in Twin-Screw Extruders, D. B. Todd, *June, p. 437*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

Development of Computer Control Strategies for Plastic Extruders, J. Parnaby, A. K. Kochhar, and B. Wood, *August, p. 594*

Theoretical Model for Intermeshing Twin Screw Extruders: Axial Velocity Profile for Shallow Channels, C. E. Wyman, *August, p. 606*

Mathematical Modelling and the Systems Approach in Plastics Processing: The Blown Film Process, C. J. S. Petrie, *October, p. 708*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

F

47. Failure

The Measurement of Toughness of ABS and High-Impact Polystyrene by the Falling Dart Impact Test, A. A. Bibeau, *April, p. 294*

Fatigue Crack Growth in Polymers. I. Effect of Frequency and Temperature, J. C. Radon and L. E. Culver, *July, p. 500*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

Materials for Biomedical Applications, I. LeMay, V. G. Lappi, and W. E. White, *November, p. 789*

Strength of Polymethylmethacrylate in Air and in n-Propanol, D. McCammond and C. A. Ward, *December, p. 869*

48. Fatigue

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

49. Fibers

Mechanics of Composites, L. Nicolais, *March, p. 137*

High-Performance Carbon Fibers, R. J. Diefendorf and E. Tokarsky, *March, p. 150*

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Conformational Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Studies on Polymer Texture Formation in Complex External Conditions, A. Ziabicki, *March, p. 211*

Molecular Composites (expanded abstract), P. Lindenmeyer, *March, p. 236*

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

The Effect of Interlayers on the Transverse Stresses in Fiber Composites, R. G. C. Arridge, *October, p. 757*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

50. Film

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

Mathematical Modelling and the Systems Approach in Plastics Processing; the Blown Film Process, C. J. S. Petrie, *October, p. 708*

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

51. Fillers

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Dynamic Mechanical and Thermal Properties of Fire-Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

52. Flammability

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Dynamic Mechanical and Thermal Properties of Fire-Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

53. Flexural Properties

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

54. Flow

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Limiting Concepts in Extensional Flow, G. Marrucci, *March, p. 229*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Analysis of a Cross Head Die With the Flow Analysis Network (FAN) Method, C. Gutfinger, E. Broyer, and Z. Tadmor, *May, p. 381*

A Coordinate Frame for Helical Flows, T. T. Tung and R. L. Laurence, *June, p. 401*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, C. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

Theoretical Model for Intermeshing Twin Screw Extruders: Axial Velocity Profile for Shallow Channels, C. E. Wyman, *August, p. 606*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

Elongational Viscosity of Microbead Suspensions, L. Nicodemo, B. De Cindio, and L. Nicolais, *September, p. 679*

On Mixing in Polymer Flow Systems, D. M. Bigg, *September, p. 684*

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

Mathematical Modelling and the Systems Approach in Plastics Processing: The Blown Film Process, C. J. S. Petrie, *October, p. 708*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

The Dry Spinning Process: Comparison of Theory with Experiment, I. Brazinsky, A-G. Williams, and H. L. Lanieve, *December, p. 834*

55. Flow Analysis Network

Analysis of a Cross Head Die With the Flow Analysis Network (FAN) Method, C. Gutfinger, E. Broyer, and Z. Tadmor, *May, p. 381*

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

56. Fluids

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

57. Fluid Mechanics

Fluid Mechanical Analysis of Injection Mold Filling, J. L. White, *January, p. 44*

58. Fluorocarbons

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

Allyl Fluoride Copolymers, J. A. Waterman, L. M. Shorr, and I. Shaham, *February, p. 97*

59. Foam

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

The Application of Structure-Property Studies to Structural Foams, S. Y. Hobbs, *December, p. 854*

60. Fractography

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

61. Fracture

The Determination of the Fracture Parameters for Polymers in Impact, E. Plati and J. G. Williams, *June, p. 470*

62. Friction

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

G

63. Gas Transmission

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

64. Gears

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

65. Glass Beads

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

66. Graphite

High-Performance Carbon Fibers, R. J. Diefendorf and E. Tokarsky, *March, p. 150*

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

H

67. Heat Capacity

Liquid (Melt) Heat Capacities and Heats of Vaporization of Oligomers of Poly-(Hexamethylene Sebacate), J. C. Phillips, L. A. Wall, and M. H. Aldridge, *February, p. 73*

68. Heat of Vaporization

Liquid (Melt) Heat Capacities and Heats of Vaporization of Oligomers of Poly-(Hexamethylene Sebacate), J. C. Phillips, L. A. Wall, and M. H. Aldridge, *February, p. 73*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, May, p. 353

69. Heat Transfer

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

70. Heparin

Long Term Thromboresistance of Heparinized Surfaces, J. Ehrlich, *April, p. 281*

71. Holography

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

72. Hydrodynamics

Fluid Mechanical Analysis of Injection Mold Filling, J. L. White, January, p. 44

I

73. Impact Properties

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

The Measurement of Toughness of ABS and High-Impact Polystyrene by the Falling Dart Impact Test, A. A. Bibeau, *April, p. 294*

The Determination of the Fracture Parameters for Polymers in Impact, E. Plati and J. G. Williams, *June, p. 470*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

74. Initiators

Effects of Mixing on Polymerizations in Batch Reactors: Comparison of Catalytic and Ionizing Radiation Initiations, H. T. Chen and J. Steenrod, *May, p. 357*

75. Injection Molding

Fluid Mechanical Analysis of Injection Mold Filling, J. L. White, *January, p. 44*

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

Mechanics of Composites, L. Nicolais, *March, p. 137*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

K

76. Kinetics

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

L

77. Laminates

Mechanics of Composites, L. Nicolais, *March, p. 137*

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

78. Lubrication

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

M

79. Manufacturing

Thermal Analysis as an Aid to Monomer Plant Design, A. T. Riga, *May, p. 349*

80. Mathematical Model

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

Mechanics of Composites, L. Nicolais, *March, p. 137*

The Measurement of Toughness of ABS and High-Impact Polystyrene by the Falling Dart Impact Test, A. A. Bibeau, *April, p. 294*

Effects of Mixing on Polymerizations in Batch Reactors: Comparison of Catalytic and Ionizing Radiation Initiations, H. T. Chen and J. Steenrod, *May, p. 357*

Analysis of a Cross Head Die With the Flow Analysis Network (FAN) Method, C. Gutfinger, E. Broyer, and Z. Tadmor, *May, p. 381*

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

Mathematical Modelling and the Systems Approach in Plastics Processing: The Blown Film Process, C. J. S. Petrie, *October, p. 708*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

The Dry Spinning Process: Comparison of Theory with Experiment, I. Brazinsky, A. G. Williams, and H. L. Lanieve, *December, p. 834*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

81. Mechanical Properties

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

Some Critical Issues in Advanced Polymer Science, J. C. Halpin, *March, p. 132*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Dehydrochlorination of Poly(Vinyl Chloride), E. P. Chang and R. Salovey, *August, p. 612*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E. Critchfield, and J. L. Dodd, *September, p. 646*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

Dynamic Mechanical and Thermal Properties of Fire Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

The Application of Structure-Property Studies to Structural Foams, S. Y. Hobbs, *December, p. 854*

82. Melt

Liquid (Melt) Heat Capacities and Heats of Vaporization of Oligomers of Poly-(Hexamethylene Sebacate), J. C. Phillips, L. A. Wall, and M. H. Aldridge, *February, p. 73*

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Limiting Concepts in Extensional Flow, G. Marrucci, *March, p. 229*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

83. Membranes

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

84. Metals

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, *May, p. 353*

Materials for Biomedical Applications, I. LeMay, V. G. Lappi, and W. E. White, *November, p. 789*

85. Mica

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

86. Mixing

Effects of Mixing on Polymerizations in Batch Reactors: Comparison of Catalytic and Ionizing Radiation Initiations, H. T. Chen and J. Steenrod, *May, p. 357*

On Mixing in Polymer Flow Systems, D. M. Bigg, *September, p. 684*

87. Moisture

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

88. Molding

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

89. Molecular Orientation

Control of Molecular Orientation (abstract), T. Alfrey, Jr., *March, p. 234*

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

Molecular Composites (expanded abstract), P. Lindenmeyer, *March, p. 236*

90. Molecular Weight

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E.

Critchfield, and J. L. Dodd, *September, p. 646*

High Speed Molecular Weight Distribution, W. A. Dark, R. J. Limpert, and J. D. Clark, *December, p. 831*

91. Morphology

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Control of Molecular Orientation (abstract), T. Alfrey, Jr., *March, p. 234*

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Studies of Polyethylene Shish-Kebab Structures, W. George and P. Tucker, *June, p. 451*

Inferences Concerning the Amorphous Regions in Polyethylene of Different Morphologies, M. Dole, *August, p. 628*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walker, *December, p. 842*

92. Mortar

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

N

93. Nylon

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

An Analysis of Caprolactam Polymerization, M V. Tirrell, G. H. Pearson, R. A. Weiss, and R. L. Laurence, *May, p. 386*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

O

94. Oligomers

Liquid (Melt) Heat Capacities and Heats of Vaporization of Oligomers of Poly-(Hexamethylene Sebacate), J. C. Phillips, L. A. Wall, and M. H. Aldridge, *February, p. 73*

95. Optical Properties

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

96. Orientation

Studies on Polymer Texture Formation in Complex External Conditions, A. Ziabicki, *March, p. 211*

Heat Conduction in Metal-Filled Polymers: The Role of Particle Size, Shape, and Orientation, D. Hansen and R. Tomkiewicz, *May, p. 353*

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. DeBeauvais, *May, p. 373*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

P

97. Particle Flow

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

98. Permeation

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

99. Phosphites

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

100. Physical Properties

Liquid (Melt) Heat Capacities and Heats of Vaporization of Oligomers of Poly-(Hexamethylene Sebacate), J. C. Phillips, L. A. Wall, and M. H. Aldridge, *February, p. 73*

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbbott, *February, p. 79*

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

Ultra-High-Modulus Fibers from Solution Spinning, A. Ciferri, *March, p. 191*

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

The Application of Structure-Property Studies to Structural Foams, S. Y. Hobbs, *December, p. 854*

101. Plastics

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel and H. A. Lord, *November, p. 774*

102. Polyacrylonitrile

High-Performance Carbon Fibers, R. J. Diefendorf and E. Tokarsky, *March, p. 150*

103. Polybutadiene

Polymeric Catenanes, D. Callahan and H. L. Frisch, *February, p. 70*

104. Polybutylene Terephthalate

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

105. Polycarbonate

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Fatigue Crack Growth in Polymers. I. Effect of Frequency and Temperature, J. C. Radon and L. E. Culver, *July, p. 500*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

106. Polydimethyl Siloxane

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. DeBeauvais, *May, p. 373*

107. Polyester

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

108. Polyethylene

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Polymer Property Enhancement by Solid-State Forming (abstract), L. J. Broutman, *March, p. 235*

Some Observations on the Long-Term Behavior of Stabilized Polyethylene, J. B. Howard and H. M. Gilroy, *April, p. 268*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

Reproducibility of Stress-Cracking Results, R. J. Roe and C. Gieniewski, *June, p. 421*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Studies of Polyethylene Shish-Kebab Structures, W. George and P. Tucker, *June, p. 451*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Inferences Concerning the Amorphous Regions in Polyethylene of Different Morphologies, M. Dole, *August, p. 628*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

109. Polymerization

Allyl Fluoride Copolymers, J. A. Waterman, L. M. Shorr, and I. Shaham, *February, p. 97*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Effects of Mixing on Polymerizations in Batch Reactors: Comparison of Catalytic and Ionizing Radiation Initiations, H. T. Chen and J. Steenrod, *May, p. 357*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

An Analysis of Caprolactam Polymerization, M. V. Tirrell, G. H. Pearson, R. A. Weiss, and R. L. Laurence, *May, p. 386*

110. Polymer Networks

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

111. Polymers

Long Term Thromboresistance of Heparinized Surfaces, J. Ehrlich, *April, p. 281*

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Non-Linear Creep of Polymers Under Superimposed Static and Dynamic Stress, G. Akay, *November, p. 811*

112. Polymethyl Methacrylate

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Fatigue Crack Growth in Polymers. I. Effects of Frequency and Temperature, J. C. Radon and L. E. Culver, *July, p. 500*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

Low Velocity Surface Fracture Patterns and Energies in Poly(Methyl Methacrylate), P. W. Osborne, *December, p. 848*

Strength of Polymethylmethacrylate in Air and in n-Propanol, D. McCammond and C. A. Ward, *December, p. 869*

113. Polyolefins

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

114. Polypentenamer

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

115. Polyphenylene Oxide

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

116. Polyphosphazenes

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

117. Polypropylene

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Conformational Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

Dynamic Mechanical and Thermal Properties of Fire-Retardant-Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Flint, *November, p. 817*

118. Polystyrene

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

The Measurement of Toughness of ABS and High-Impact Polystyrene by the Falling Dart Impact Test, A. A. Bibeau, *April, p. 294*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

High Speed Molecular Weight Distribution, W. A. Dark, R. J. Limpert, and J. D. Carter, *December, p. 831*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo and P. H. Doan, *December, p. 863*

119. Polysulfone

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

120. Polyurethanes

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

121. Polyvinyl Chloride

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

World-Wide Weathering of Poly(Vinyl Chloride), E. Szabo and R. E. Lally, *April, p. 277*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, P. J. Fenelon, *July, p. 538*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Dehydrochlorination of Poly(Vinyl Chloride), E. P. Chang and R. Salovey, *August, p. 612*

122. Porosity

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

123. Powder

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

124. Pressure Dependence

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

Maximum Pressure Developed by Solid Conveying Force in Screw Extruders, C. I. Chung, *January, p. 29*

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

Theoretical Model for Intermeshing Twin Screw Extruders: Axial Velocity Profile for Shallow Channels, C. E. Wyman, *August, p. 606*

125. Processing

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

Development of Computer Control Strategies for Plastic Extruders, J. Parnaby, A. K. Kochhar, and B. Wood, *August, p. 594*

Dehydrochlorination of Poly(Vinyl Chloride), E. P. Chang and R. Salovey, *August, p. 612*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

On Mixing in Polymer Flow Systems, D. M. Bigg, *September, p. 684*

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

Mathematical Modelling and the Systems Approach in Plastics Processing: The Blown Film Process, C. J. S. Petrie, *October, p. 708*

Recycling Plastics by Two-Shot Molding, R. C. Donovan, K. S. Rabe, W. K. Mammel, and H. A. Lord, *November, p. 774*

R

126. Radiation

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

127. Reinforced Plastics

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Oriented Short Glass-Fiber Composites. I. Preparation and Statistical Analysis of Aligned Fiber Mats, L. Kacir, M. Narkis, and O. Ishai, *July, p. 525*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

128. Relaxation

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

129. Residence Time

Residence Time Distribution in Twin-Screw Extruders, D. B. Todd, *June, p. 437*

130. Rheology

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

131. Rheometry

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

132. Roll Coating

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

S

133. Screw Design

Maximum Pressure Developed by Solid Conveying Force in Screw Extruders, C. I. Chung, *January, p. 29*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

134. Sensitivity

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

135. Shear

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. DeBeauvais, *May, p. 373*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

The Effect of Interlayers on the Transverse Stresses in Fiber Composites, R. G. C. Arridge, *October, p. 757*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

136. Sheet

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

137. Solidification

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

138. Solubility

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Inferences Concerning the Amorphous Regions in Polyethylene of Different Morphologies, M. Dole, *August, p. 628*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

139. Sorption

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, April, p. 261

140. Spinning

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

The Dry Spinning Process: Comparison of Theory with Experiment, I. Brazinsky, A. G. Williams, and H. L. Lanieve, *December, p. 834*

141. Stabilization

Role of Singlet Oxygen in Photo-Oxidative Degradation and Photostabilization of

Polymers, J. F. Rabek and B. Rånby, *January, p. 40*

Mechanics of Composites, L. Nicolais, *March, p. 137*

Some Observations on the Long-Term Behavior of Stabilized Polyethylene, J. B. Howard and H. M. Gilroy, *April, p. 268*

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

142. Stabilizers

Some Observations on the Long-Term Behavior of Stabilized Polyethylene, J. B. Howard and H. M. Gilroy, *April, p. 268*

World-Wide Weathering of Poly(Vinyl Chloride), E. Szabo and R. E. Lally, *April, p. 277*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

Phosphites in Polyolefin Process Stabilization, W. C. Ray and K. Isenhart, *October, p. 703*

143. Stamping

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

144. Stiffness

Mechanics of Composites, L. Nicolais, *March, p. 137*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Conformational Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

145. Strength

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, P. J. Fenelon, *July, p. 538*

Strength of Polymethylmethacrylate in Air and in n-Propanol, D. McCammond and C. A. Ward, *December, p. 869*

146. Stress-Strain

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

Polymeric Catenanes, D. Callahan and H. L. Frisch, *February, p. 70*

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Mechanics of Composites, L. Nicolais, *March, p. 137*

Engineering Potential of Composite Materials, I. Crivelli-Visconti, *March, p. 167*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Limiting Concepts in Extensional Flow, G. Marrucci, *March, p. 229*

Molecular Composites (expanded abstract), P. Lindenmeyer, *March, p. 236*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Molecular Orientation Effects on Thermal Conductivity of Polydimethylsiloxane Under Shearing Strain, J. J. C. Picot and F. DeBeauvais, *May, p. 373*

Certain Aspects of Film Blowing of Low-Density Polyethylene, G. Menges and W. O. Predöhl, *May, p. 394*

Reproducibility of Stress-Cracking Results, R. J. Roe and C. Gieniewski, *June, p. 421*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, P. J. Fenelon, *July, p. 538*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Development of an Extrusion Rheometer Suitable for On-Line Rheological Measurements, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 583*

The Mechanical Behavior of Springy Polypropylene, S. L. Cannon, W. O. Statton, and J. W. S. Hearle, *September, p. 633*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

The Effect of Interlayers on the Transverse Stresses in Fiber Composites, R. G. C. Arridge, *October, p. 757*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

Non-Linear Creep of Polymers Under Superimposed Static and Dynamic Stress, G. Akay, *November, p. 811*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

147. Structure

Effect of Polymeric Structure on the Permeation Rate in Standard Reference Material Sulfur Dioxide Permeation Tubes, D. H. Reneker, G. M. Martin, R. J. Rubin, and J. P. Colson, *January, p. 11*

The Detection of Structure in Amorphous Polymers by Electron Microscopy: Particle Flow, L. L. Chapoy and A. Sørensen, *February, p. 113*

Some Critical Issues in Advanced Polymer Science, J. C. Halpin, *March, p. 132*

High-Performance Carbon Fibers, R. J. Diefendorf and E. Tokarsky, *March, p. 150*

Characterization of Advanced Composite Materials for Structural Design, M. E. Waddoups, *March, p. 161*

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

Studies of Polyethylene Shish-Kebab Structures, W. George and P. Tucker, *June, p. 451*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

Basic Aspects of Structure-Property Relationships for Composites, J.-M. Charrier, *October, p. 731*

Microstructure and Ordering in Cellulose Acetate and Reverse Osmosis Membranes, G. Arneri and J. A. Sauer, *November, p. 795*

Morphology of Random and Non-Random Olefin Copolymers of Ethylene, F. E. Bailey, Jr. and E. R. Walter, *December, p. 842*

The Application of Structure-Property Studies to Structural Foams, S. Y. Hobbs, *December, p. 854*

148. Synthesis

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

T

149. Temperature Dependence

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Fluid Mechanical Analysis of Injection Mold Filling, J. L. White, *January, p. 44*

Biaxial Stretching of Heat-Softened Plastic Sheets: Experiments and Results, L. R. Schmidt and J. F. Carley, *January, p. 51*

Dynamic Mechanical Response of Polymer-Impregnated Mortars, D. Whiting, P. R. Blankenhorn, and D. E. Kline, *February, p. 65*

Polymeric Catenanes, D. Callahan and H. L. Frisch, *February, p. 70*

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A. Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith and R. F. Abbott, *February, p. 79*

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

Ultra-High Molecular Weight High-Density Polyethylene as a Gear Material, H. Yelle and M. Poupard, *February, p. 90*

The Flow Behavior and Impact Strength of Poly(Butylene-Terephthalate) as a Function of Several Processing Variables, M. P. Van Der Wielen, *February, p. 102*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

Studies on Polymer Texture Formation in Complex External Conditions, A. Ziabicki, *March, p. 211*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Frequency Sensitivity of Fatigue Processes in Polymeric Solids, R. W. Hertzberg, J. A. Manson, and M. Skibo, *April, p. 252*

Sorption Kinetics and Equilibria in Annealed Glassy Polyblends, H. B. Hopfenberg, V. T. Stannett, and G. M. Folk, *April, p. 261*

Some Observations on the Long-Term Behavior of Stabilized Polyethylene, J. B. Howard and H. M. Gilroy, *April, p. 268*

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

Degradation of Chlorinated Polyethylene—III: Effect of Additives on Dehydrochlorination and Oxygen Absorption, I. Abu-Isa, *April, p. 299*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Polyphosphazenes: Synthesis—Properties—Applications, R. E. Singler, N. S. Schneider, and G. L. Hagnauer, *May, p. 321*

Mechanical and Optical Properties of Polyurethane-Polystyrene Two-Phase Polymers, D. Kaplan and N. W. Tschoegl, *May, p. 343*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

Characterization of the Time-Temperature-Viscosity Behavior of Curing B-Staged Epoxy Resin, M. B. Roller, *June, p. 406*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Reproducibility of Stress-Cracking Results, R. J. Roe and C. Gieniewski, *June, p. 421*

Predicting the Effect of Screw Wear on the Performance of Plasticating Extruders, I. Klein, *June, p. 444*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. I. Survey, O. Ishai, *July, p. 486*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Fatigue Crack Growth in Polymers. I. Effect of Frequency and Temperature, J. C. Radon and L. E. Culver, *July, p. 500*

Fatigue Crack Growth in Polymers. II. The Interaction of Mean Stress, Frequency, and Temperature, J. C. Radon and L. E. Culver, *July, p. 507*

Oriented Short Glass-Fiber Composites. II. Analysis of Parameters Controlling the Fiber/Glycerine Orientation Process, L. Kacir, M. Narkis, and O. Ishai, *July, p. 532*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Dehydrochlorination of Poly(Vinyl Chloride), E. P. Chang and R. Salovey, *August, p. 612*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E. Critchfield, and J. L. Dodd, *September, p. 646*

Crystalline Polymers as Heat Storage Materials in Passive Thermal Protection Systems, D. H. Kaelble, E. H. Cirlin, and P. J. Dynes, *September, p. 673*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. L. Throne, *September, p. 690*

Dynamic Mechanical and Thermal Properties of Fire-Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

Environmental Effects on Fiber-Reinforced Composites, R. A. Heller, H. F. Brinson, and A. B. Thakker, *November, p. 781*

Structural Damping of Composites Under Sustained Vibratory Stresses, M. G. Sharma and C. S. Hong, *November, p. 805*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

The Dry Spinning Process: Comparison of Theory with Experiment, I. Brazinsky, A. G. Williams, and H. L. Lanieve, *December, p. 834*

150. Tensile Properties

Nondestructive Testing of Plastics by Means of Holographic Interferometry, K. Grünewald, W. Fritzsch, A. v. Harnier, and E. Roth, *January, p. 16*

Ultimate Behavior of Dry and Water-Swollen Polymer Network/Glass Bead

Composites, L. Nicolais, D. Acierno, and J. Janáček, *January, p. 35*

Polymeric Catenanes, D. Callahan and H. F. Frisch, *February, p. 70*

Effect of Mold Temperature on the Morphology and Properties of Polypropylene: I. A. Propylene-Ethylene Copolymer, S. J. Henke, C. E. Smith, and R. F. Abbott, *February, p. 79*

Properties of Polypropylene-Polyethylene Blends, O. F. Noel, III and J. F. Carley, *February, p. 117*

Mechanics of Composites, L. Nicolais, *March, p. 137*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Creep of Carbonated Plastic Beverage Bottles, K. Thiruvillakkat and G. K. Mahajan, *April, p. 272*

Measurement of Aging Effects of ABS Polymers, A. Casale, O. Salvatore, and G. Pizzigoni, *April, p. 286*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Crazing in Glassy Polymers: Studies on Polymer-Glass Bead Composites, M. Narkis, *April, p. 316*

Polyurethane-Polystyrene Interpenetrating Polymer Networks, S. C. Kim, D. Klempner, K. C. Frisch, H. L. Frisch, and H. Ghiradella, *May, p. 339*

Structure and Properties of Polypentenamer, H. Tucker, R. J. Minchak, and J. H. Macey, *May, p. 360*

Mechanical Properties of Discontinuous Fiber Reinforced Thermoplastics. II. Random-in-Plane Fiber Orientation, B. F. Blumentritt, B. T. Vu, and S. L. Cooper, *June, p. 428*

Environmental Effects on Deformation, Strength, and Degradation of Unidirectional Glass-Fiber Reinforced Plastics. II. Experimental Study, O. Ishai, *July, p. 491*

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, July, p. 538

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Estimation of Mechanical Properties for Rigid Polyurethane Foams, G. Menges and F. Knipschild, *August, p. 623*

Structure Development During Polymer Processing: Studies of the Melt Spinning of Polyethylene and Polypropylene Fibers, J. E. Spruiell and J. L. White, *September, p. 660*

An Analysis of the Rheology of Polypropylene Below its Melting Point, J. M. Funt, *November, p. 817*

151. Testing

The Determination of the Fracture Parameters for Polymers in Impact, E. Plati and J. G. Williams, *June, p. 470*

High Speed Molecular Weight Distribution, W. A. Dark, R. J. Limpert, and J. D. Carter, *December, p. 831*

Low Velocity Surface Fracture Patterns and Energies in Poly(Methyl Methacrylate), P. W. Osborne, *December, p. 848*

152. Theoretical Model

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

Maximum Pressure Developed by Solid Conveying Force in Screw Extruders, C. I. Chung, *January, p. 29*

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

A Study of the Fatigue Behavior of Reinforced Nylons, A. T. DiBenedetto, G. Salee, and R. Hlavacek, *April, p. 242*

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

An Analysis of Caprolactam Polymerization, M. V. Tirrell, G. H. Pearson, R. A. Weiss, and R. L. Laurence, *May, p. 386*

A Coordinate Frame for Helical Flows, T. T. Tung and R. L. Laurence, *June, p. 401*

Residence Time Distribution in Twin-Screw Extruders, D. B. Todd, *June, p. 437*

Approximate Calculation and Measurement of the Pressure Distribution in Radial Flow of Molten Polymers Between Parallel Discs, H. H. Winter, *June, p. 460*

Melt Solidification in Polymer Processing, C. Gutfinger, E. Broyer, and Z. Tadmor, *July, p. 515*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

Development of Computer Control Strategies for Plastic Extruders, J. Parnaby, A. K. Kochhar, and B. Wood, *August, p. 594*

Theoretical Model for Intermeshing Twin Screw Extruders: Axial Velocity Profile for Shallow Channels, C. E. Wyman, *August, p. 606*

Asymmetric Loading of Bonded Rubber Cylinders, D. F. Sims, *September, p. 651*

Power for Multi-Section Melt Screw Extruders, R. R. Kraybill, *October, p. 725*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

153. Thermal Properties

The Thermal Conductivity of Nickel and Copper Dispersed in Poly(Vinyl Chloride), R. P. Kusy and R. D. Corneliussen, *February, p. 107*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

Thermal Analysis as an Aid to Monomer Plant Design, A. T. Riga, *May, p. 349*

Effect of Processing Variables on the Thermophysical Properties of Polybenzimidazole Foams, D. A. Kourtides and J. A. Parker, *June, p. 415*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

Dynamic Mechanical and Thermal Properties of Fire-Retardant Polypropylene, E. P. Chang, R. Kirsten, and R. Salovey, *October, p. 697*

154. Thermodynamics

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

155. Thermoplastics

Predicting Toughness of Impact Thermoplastics From High-Speed Tensile Data, P. J. Fenelon, *July, p. 538*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part I: The Flow of Plastic Materials in Hot- and Cold-Walled Circular Channels, G. Williams and H. A. Lord, *August, p. 553*

Mold-Filling Studies for the Injection Molding of Thermoplastic Materials. Part II: The Transient Flow of Plastic Materials in the Cavities of Injection-Molding Dies, H. A. Lord and G. Williams, *August, p. 569*

Stampable Nylon Sheets: Reinforcing with Long Glass Fibers, L. Segal and A. H. Steinberg, *August, p. 615*

Thermoplastic Urethane Elastomers IV. Effects of Cycloaliphatic Chain Extender on Dynamic Mechanical Properties, C. G. Seefried, Jr., J. V. Koleske, F. E. Critchfield, and J. L. Dodd, *September, p. 646*

Structural Thermoplastic Foam—A Low Energy Processed Material, J. L. Throne and R. G. Griskey, *October, p. 747*

The Application of Structure-Property Studies to Structural Foams, S. Y. Hobbs, *December, p. 854*

The Injection Molding Behavior of Thermoplastics in Thin Rectangular Cavities, M. R. Kamal, Y. Kuo, and P. H. Doan, *December, p. 863*

156. Thromboresistance

Long Term Thromboresistance of Heparinized Surfaces, J. Ehrlich, *April, p. 281*

Materials for Biomedical Applications, I. LeMay, V. G. Lappi, and W. E. White, *November, p. 789*

157. Time Dependence

Gas Transmission Through Polymers, F. Horsfall and D. I. James, *May, p. 367*

Characterization of the Time-Temperature-Viscosity Behavior of Curing B-Staged Epoxy Resin, M. B. Roller, *June, p. 406*

Prediction of the Creep Behavior of Reinforced Plastics, G. Menges and H. J. Roskothen, *July, p. 544*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

On Mixing in Polymer Flow Systems, D. M. Bigg, *September, p. 684*

Non-Isothermal Curing of Reactive Plastics, R. C. Progelhof and J. I . Throne, *September, p. 690*

Non-Linear Creep of Polymers Under Superimposed Static and Dynamic Stress, G. Akay, *November, p. 811*

U

158. Ultramolecular Orientation

Some Critical Issues in Advanced Polymer Science, J. C. Halpin, *March, p. 132*

The Potential Mechanical Response of Macro-Molecular Systems—A Composite Analogy, J. L. Kardos and J. Raisoni, *March, p. 183*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

Conformation Considerations of High-Modulus Polymers, G. Allegra, *March, p. 207*

Studies on Polymer Texture Formation in Complex External Conditions, A. Ziabicki, *March, p. 211*

Polymer Modulus and Morphology: The Tensile Properties of Polyethylene, R. S. Porter, J. H. Southern, and N. Weeks, *March, p. 213*

Ultra-High-Modulus Linear Polyethylene Through Controlled Molecular Weight and Drawing, G. Cappacio and I. M. Ward, *March, p. 219*

159. Vinyls

Thermal Analysis as an Aid to Monomer Plant Design, A. T. Riga, *May, p. 349*

160. Viscoelasticity

A Theory of Roll Coating of Viscous and Viscoelastic Fluids, Y. Greener and S. Middleman, *January, p. 1*

The Effects of Extrusion on the Molecular and Rheological Properties of General-Purpose Polystyrene, P. W. Springer, R. S. Brodkey, and R. E. Lynn, *August, p. 588*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

161. Viscosity

Temperature Fields in Extruder Dies With Circular, Annular, or Slit Cross-Section, H. H. Winter, *February, p. 84*

Ultra-High-Modulus Fibers From Solution Spinning, A. Ciferri, *March, p. 191*

High-Strength/High-Modulus Organic Fibers, J. Preston, *March, p. 199*

Mica Reinforced Polypropylene, K. Okuno and R. T. Woodhams, *April, p. 308*

Characterization of the Time-Temperature-Viscosity Behavior of Curing B-Staged Epoxy Resin, M. B. Roller, *June, p. 406*

An Experimental Study of Sandwich Injection Molding of Two Polymer Melts Using Simultaneous Injection, J. L. White and B. L. Lee, *July, p. 481*

Fiber Reinforced Rubber Modified Polypropylene, W. M. Speri and G. R. Patrick, *September, p. 668*

Elongational Viscosity of Microbead Suspensions, L. Nicodemo, B. De Cindio, and L. Nicolais, *September, p. 679*

The Flow of Non-Newtonian Solutions Through Packed Beds, H. C. Park, M. C. Hawley, and R. F. Blanks, *November, p. 761*

Co-Extrusion of Unfilled and TiO_2-Filled Polyethylene: Influence of Viscosity and Die Cross-Section on Interface Surface, N. Minagawa and J. L. White, *December, p. 825*

W

162. Weathering

World-Wide Weathering of Poly(Vinyl Chloride), E. Szabo and R. E. Lally, *April, p. 277*

AUTHORS' INDEX

Numbers refer to category headings under "Subject and Title Index;" i.e., 117 see "Polypropylene."

A

Abbott, R. F. 20, 73, 75, 81, 90, 91, 100, 117, 149, 150
Abu-Isa, I. 2, 4, 30, 108, 142, 149
Acierno, D. 17, 51, 65, 146, 149, 150
Akay, G. 23, 34, 111, 146, 157
Aldridge, M. H. 67, 68, 82, 94, 100
Alfrey, T., Jr. 25, 89, 91
Allegra, G. 25, 37, 49, 117, 144, 158
Arneri, G. 13, 25, 50, 83, 96, 98, 123, 147
Arridge, R. G. C. 17, 44, 49, 135, 146

B

Bailey, F. E., Jr. 20, 25, 50, 91, 96, 108, 147
Bibeau, A. A. 1, 47, 73, 80, 118
Bigg, D. M. 32, 54, 86, 125, 157
Blankenhorn, P. R. 17, 34, 44, 62, 92, 112, 122, 149
Blanks, R. F. 54, 56, 130, 135, 146, 152, 160, 161
Blumentritt, B. F. 17, 49, 81, 127, 145, 146, 150
Brazinsky, I. 13, 54, 80, 140, 149
Brinson, H. F. 17, 23, 44, 77, 146, 149
Brodkey, R. S. 32, 46, 54, 90, 118, 124, 130, 131, 135, 146, 157, 160
Broutman, L. J. 16, 25, 89, 100, 105, 108
Broyer, E. 18, 32, 54, 55, 80, 82, 125, 137, 152

C

Callahan, D. 12, 103, 146, 149, 150
Cannon, S. L. 29, 49, 81, 117, 128, 146
Cappacio, G. 29, 33, 81, 82, 90, 91, 144, 146, 149, 153, 158
Carley, J. F. 6, 9, 14, 31, 54, 105, 108, 112, 117, 118, 121, 130, 135, 136, 146, 149, 150
Carter, J. D. 15, 44, 90, 118, 151
Casale, A. 1, 3, 30, 53, 73, 91, 100, 150
Chang, E. P. 2, 25, 51, 52, 81, 117, 121, 125, 149, 153
Chapoy, L. L. 40, 90, 91, 97, 118, 147
Charrier, J.-M. 17, 19, 37, 54, 144, 147
Chen, H. T. 74, 80, 86, 109
Chung, C. I. 45, 124, 133, 152
Ciferri, A. 49, 100, 135, 140, 145, 146, 149, 154, 156, 161
Cirlin, E. H. 24, 25, 82, 108, 126, 149
Clark, J. D. 15, 44, 90
Colson, J. P. 31, 58, 80, 91, 98, 147
Cooper, S. L. 17, 49, 81, 127, 145, 146, 150
Corneliussen, R. D. 19, 39, 81, 84, 121, 153
Critchfield, F. E. 20, 38, 81, 90, 149, 155
Crivelli-Visconti, I. 17, 36, 42, 49, 77, 100, 146
Culver, L. E. 21, 47, 105, 112, 146, 149

D

Dark, W. A. 15, 44, 90, 118, 151
DeBeauvais, F. 8, 19, 96, 106, 135, 146
De Cindio, B. 17, 54, 161
DiBenedetto, A. T. 48, 49, 60, 66, 76, 93, 127, 150, 152
Diefendorf, R. J. 17, 49, 66, 102, 147
Doan, P. H. 31, 32, 75, 80, 108, 118, 155
Dodd, J. L. 20, 38, 81, 90, 149, 155
Dole, M. 25, 91, 108, 138
Donovan, R. C. 32, 35, 73, 75, 77, 80, 101, 125
Dynes, P. J. 24, 25, 82, 108, 126, 149

E

Ehrlich, J. 7, 70, 111, 156

F

Fenelon, P. J. 1, 121, 145, 146, 150, 155
Folk, G. M. 9, 50, 76, 115, 118, 139, 149

Frisch, H. L. 12, 17, 91, 103, 110, 118, 120, 146, 149, 150
Frisch, K. C. 17, 91, 110, 118, 120, 146, 150
Fritzsch, W. 29, 44, 71, 127, 136, 150
Funt, J. M. 23, 29, 31, 117, 130, 135, 146, 149, 150

G

George, W. 91, 108, 147
Ghiradella, H. 17, 91, 110, 118, 120, 146, 150
Gieniewski, C. 21, 108, 146, 149
Gilroy, H. M. 2, 108, 141, 142, 149
Greener, Y. 50, 56, 124, 132, 152, 160
Griskey, R. G. 2, 10, 31, 32, 59, 88, 138, 155
Grünewald, K. 29, 44, 71, 127, 136, 150
Gutfinger, C. 18, 32, 54, 55, 80, 82, 125, 137, 152

H

Hagnauer, G. L. 52, 100, 116, 138, 141, 147, 148, 149
Halpin, J. C. 17, 81, 147, 158
Hansen, D. 17, 19, 44, 69, 84, 96
Harnier, A. v. 29, 44, 71, 127, 136, 150
Hawley, M. C. 54, 56, 130, 135, 146, 152, 160, 161
Hearle, J. W. S. 29, 49, 81, 117, 128, 146
Heller, R. A. 17, 23, 44, 77, 146, 149
Henke, S. J. 20, 73, 75, 81, 90, 91, 100, 117, 149, 150
Hertzberg, R. W. 22, 23, 48, 93, 105, 112, 115, 118, 119, 121, 134, 146, 149
Hlavacek, R. 48, 49, 60, 66, 76, 93, 127, 150, 152
Hobbs, S. Y. 59, 81, 100, 147, 155
Hong, C. S. 17, 28, 34, 49, 96, 146, 149
Hopfenberg, H. B. 9, 50, 76, 115, 118, 139, 149
Horsfall, F. 63, 98, 111, 124, 152, 157
Howard, J. B. 2, 108, 141, 142, 149

I

Isenhart, K. 54, 99, 113, 125, 141, 142
Ishai, O. 17, 29, 30, 43, 44, 49, 54, 80, 87, 96, 124, 127, 145, 146, 149, 150

J

James, D. I. 63, 98, 111, 124, 152, 157
Janáček, J. 17, 51, 65, 146, 149, 150

K

Kacir, L. 17, 49, 54, 80, 96, 124, 127, 149
Kaelble, D. H. 24, 25, 82, 108, 126, 149
Kamal, M. R. 31, 32, 75, 80, 108, 118, 155
Kaplan, D. 8, 17, 81, 95, 110, 118, 120, 146, 149
Kardos, J. L. 17, 25, 42, 108, 127, 135, 144, 146, 149, 150, 152, 156
Kim, S. C. 17, 91, 110, 118, 120, 146, 150
Kirsten, R. 2, 25, 51, 52, 81, 117, 149, 153
Klein, I. 18, 45, 46, 93, 108, 117, 133, 135, 149
Klempner, D. 17, 91, 110, 118, 120, 146, 150
Kline, D. E. 17, 34, 44, 62, 92, 112, 122, 149
Knipschild, F. 59, 80, 81, 120, 135, 150
Kochhar, A. K. 18, 45, 46, 125, 152
Koleske, J. V. 20, 38, 81, 90, 149, 155
Kourtides, D. A. 27, 59, 81, 100, 125, 149, 153
Kraybill, R. R. 5, 32, 45, 133, 135, 146, 152
Kuo, Y. 31, 32, 75, 80, 108, 118, 155
Kusy, R. P. 19, 39, 81, 84, 121, 153

L

Lally, R. E. 2, 30, 121, 142, 162
Lanieve, H. L. 13, 54, 80, 140, 149
Lappi, V. G. 7, 17, 47, 84, 156
Laurence, R. L. 45, 54, 93, 109, 152
Lee, B. L. 41, 54, 75, 82, 108, 112, 118, 161
LeMay, I. 7, 17, 47, 84, 156
Limpert, R. J. 15, 44, 90, 118, 151
Lindenmeyer, P. 17, 25, 42, 49, 89, 146
Lord, H. A. 1, 18, 32, 35, 54, 73, 75, 77, 80, 101, 121, 124, 125, 149, 155
Lynn, R. E. 32, 46, 54, 90, 118, 124, 130, 131, 135, 146, 157, 160

M

Macey, J. H. 25, 90, 109, 114, 147, 149, 150
Mahajan, G. K. 11, 23, 29, 146, 149, 150
Mammel, W. K. 32, 35, 73, 75, 77, 80, 101, 125
Manson, J. A. 22, 23, 48, 93, 105, 112, 115, 118, 119, 121, 134, 146, 149
Marrucci, G. 42, 54, 82, 146
Martin, G. M. 31, 58, 80, 91, 98, 147
McCammond, D. 23, 47, 112, 145
Menges, G. 23, 29, 37, 50, 59, 69, 80, 81, 107, 108, 120, 127, 135, 146, 149, 150, 152, 157
Middleman, S. 50, 56, 124, 132, 152, 160
Minagawa, N. 46, 51, 54, 108, 130, 135, 146, 161
Minchak, R. J. 25, 90, 109, 114, 147, 149, 150

N

Narkis, M. 1, 2, 17, 22, 49, 54, 65, 80, 96, 115, 118, 121, 124, 127, 146, 149, 150
Nicodemo, L. 17, 54, 161
Nicolais, L. 17, 23, 44, 49, 51, 54, 65, 75, 77, 80, 141, 144, 146, 149, 150, 161
Noel, O. F., III 9, 31, 54, 108, 117, 130, 135, 146, 150

O

Okuno, K. 17, 54, 81, 85, 117, 127, 135, 149, 150, 161
Osborne, P. W. 61, 112, 151

P

Park, H. C. 54, 56, 130, 135, 146, 152, 160, 161
Parker, J. A. 27, 59, 81, 100, 125, 149, 153
Parnaby, J. 18, 45, 46, 125, 152
Patrick, G. R. 1, 49, 54, 81, 117, 127, 153, 161
Pearson, G. H. 93, 109, 152
Petrie, C. J. S. 46, 50, 54, 80, 125
Phillips, J. C. 67, 68, 82, 94, 100
Picot, J. J. C. 8, 19, 96, 106, 135, 146
Pizzigoni, G. 1, 3, 30, 53, 73, 91, 100, 150
Plati, E. 61, 73, 151
Porter, R. S. 25, 33, 91, 108, 149, 158
Poupard, M. 64, 78, 90, 100, 108, 149
Predöhl, W. O. 29, 50, 69, 80, 108, 146
Preston, J. 17, 49, 109, 140, 145, 146, 150, 161
Progelhof, R. C. 27, 44, 76, 80, 100, 107, 149, 157

R

Rabe, K. S. 32, 35, 73, 75, 77, 80, 101, 125
Rabek, J. F. 4, 30, 141
Radon, J. C. 21, 47, 105, 112, 146, 149
Raisoni, J. 17, 25, 42, 108, 127, 135, 144, 146, 149, 150, 152, 156
Rånby, B. 4, 30, 141
Ray, W. C. 54, 99, 113, 125, 141, 142
Reneker, D. H. 31, 58, 80, 91, 98, 147
Riga, A. T. 2, 32, 79, 153, 159
Roe, R. J. 21, 108, 146, 149
Roller, M. B. 27, 44, 149, 157, 161
Roskothen, H. J. 23, 29, 37, 107, 127, 146, 149, 152, 157
Roth, E. 29, 44, 71, 127, 136, 150
Rubin, R. J. 31, 58, 80, 91, 98, 147

S

Salee, G. 48, 49, 60, 66, 76, 93, 127, 150, 152
Salovey, R. 2, 25, 51, 52, 81, 117, 121, 125, 149, 150, 153
Salvatore, O. 1, 3, 30, 53, 73, 91, 100
Sauer, J. A. 13, 25, 50, 83, 96, 98, 123, 147
Schmidt, L. R. 6, 14, 105, 112, 118, 121, 136, 146, 149
Schneider, N. S. 52, 100, 116, 138, 141, 147, 148, 149
Seefried, C. G., Jr. 20, 38, 81, 90, 149, 155
Segal, L. 49, 53, 73, 93, 100, 127, 143, 149, 150, 155
Shaham, I. 20, 58, 109
Sharma, M. G. 17, 28, 34, 49, 96, 146, 149
Shorr, L. M. 20, 58, 109
Sims, D. F. 27, 29, 37, 38, 152
Singler, R. E. 52, 100, 116, 138, 141, 147, 148, 149
Skibo, M. 22, 23, 48, 93, 105, 112, 115, 118, 119, 121, 134, 146, 149
Smith, C. E. 20, 73, 75, 81, 90, 91, 100, 117, 149, 150
Sørensen, A. 40, 90, 91, 97, 118, 147
Southern, J. H. 25, 33, 91, 108, 149, 158
Speri, W. M. 1, 49, 54, 81, 117, 127, 153, 161
Springer, P. W. 32, 46, 54, 90, 118, 124, 130, 131, 135, 146, 157, 160
Spruiell, J. E. 26, 49, 76, 81, 91, 108, 117, 125, 140, 147, 150
Stannett, V. T. 9, 50, 76, 115, 118, 139, 149
Statton, W. O. 29, 49, 31, 117, 128, 146
Steenrod, J. 74, 80, 86, 109
Steinberg, A. H. 49, 53, 73, 93, 100, 127, 143, 149, 150, 155
Szabo, E. 2, 30, 121, 142, 162

T

Tadmor, Z. 18, 32, 54, 55, 80, 82, 125, 137, 152

Thakker, A. B. 17, 23, 44, 77, 146, 149
Thiruvillakkat, K. 11, 23, 29, 146, 149, 150

Throne, J. L. 2, 10, 27, 31, 32, 44, 59, 76, 80, 88, 100, 107, 138, 149, 155, 157

Tirrell, M. V. 93, 109, 152
Todd, D. B. 45, 46, 129, 152
Tokarsky, E. 17, 49, 66, 102, 147
Tomkiewicz, R. 17, 19, 44, 69, 84, 96
Tschoegl, N. W. 8, 17, 81, 95, 110, 118, 120, 146, 149

Tucker, H. 25, 90, 109, 114, 147, 149, 150

Tucker, P. 91, 108, 147
Tung, T. T. 45, 54, 152

V

Van Der Wielen, M. P. 54, 73, 88, 104, 125, 131, 135, 146, 149
Vu, B. T. 17, 49, 81, 127, 145, 146, 150

W

Waddoups, M. E. 17, 32, 42, 49, 77, 100, 147
Wau, L. A. 67, 68, 82, 94, 100
Walter, E. R. 20, 25, 50, 91, 96, 108, 147
Ward, C. A. 23, 47, 112, 145
Ward, I. M. 29, 33, 81, 82, 90, 91, 144, 146, 149, 153, 158
Waterman, J. A. 20, 58, 109
Weeks, N. 25, 33, 91, 108, 149, 158
Weiss, R. A. 93, 109, 152
White, J. L. 26, 41, 46, 49, 51, 54, 57, 72, 75, 76, 81, 82, 91, 108, 112, 117, 118, 125, 130, 135, 140, 146, 147, 149, 150, 161
White, W. E. 7, 17, 47, 84, 156
Whiting, D. 17, 34, 44, 62, 92, 112, 122, 149
Williams, A. G. 13, 54, 80, 140, 149
Williams, G. 1, 18, 32, 54, 75, 80, 121, 124, 149, 155
Williams, J. G. 61, 73, 151
Winter, H. H. 45, 46, 54, 82, 108, 111, 118, 124, 135, 146, 149, 152, 161
Wood, B. 18, 45, 46, 125, 152
Woodhams, R. T. 17, 54, 81, 85, 117, 127, 135, 149, 150, 161
Wyman, C. E. 45, 46, 54, 124, 152

Y

Yelle, H. 64, 78, 90, 100, 108, 149

Z

Ziabicki, A. 26, 49, 96, 149, 158